

Remarks

The subject application has been carefully considered in view of the Examiner's Action of February 12, 2004. The Applicant appreciates the Examiner's thorough review of the application and cited prior art. In response to the restriction requirement, Applicants elect Group I, Embodiment 1 (Claims 1 - 19) and withdraw Claim 20, according to 37 CFR 1.142(b), as the Examiner has directed. Also, claims 1 - 3, 5, 8 - 10, 12 - 13, 15, and 18 - 19 have been amended to more particularly point out and distinctly claim the invention. Claim 21 has been added to take the place of the withdrawn Claim 20.

Claims 2, 10 (11), and 15 are amended along lines suggested by the Examiner. Claim 2 is amended to add a period after the claim. Claims 2 - 9, and 11 - 19 now depend from the new claims as amended.

The first paragraph of the written description is amended to claim priority to the issued Patent No. 6,669,403 instead of the corresponding application serial no. 10/118,108.

The Invention

The invention is a wave energy dissipation system to dissipate water wave energy. Each module of the wave energy dissipation system is generally cubical with a flange at each corner to facilitate connecting one module to another. The flanges allow a plurality of modules to be attached one to another in a variety of patterns. The flanges are arranged in parallel spaced apart pairs and have axially aligned holes in opposed pairs of flanges to receive a connector such as a rod. A front face of the module (the side facing an incoming wave) has a recessed portion between the flanges as shown in Figures 1 and 4. Similar recesses are found connecting the rear side of the module to its top and bottom.

In operation, the modules are connected side-to-side to form a barrier to an incoming wave. The incoming wave is channeled into the recessed portion of each module and as the wave passes into each recess, the water is deflected as set forth in

claims 1 and 10. Connecting the modules in a front-to-back, offset pattern (in addition to-side-to-side) allows portions of the wave passing between modules to strike recesses in a second line of modules. This extends the flow distance and maximizes the hydraulic resistance and loss of energy of the wave flowing through the array of connected modules. The modules also can be connected by attaching one atop another to extend the depth of the barrier.

The Rejection and Arguments

1. Independent Claims 1 and 10, and Claims 2, 5, 7 - 8, 10 - 12, 15, and 17 - 18 stand rejected under 35 U.S.C. 102(b) as being anticipated by Bishop, US 5,879,105 (hereafter referred to as "Bishop").

Applicant does not agree with the Examiner's analysis of Bishop. If the Examiner considers (page 5, line 12 of the February 12, 2004 office action) that the protruding ends of the yoke 44 of Bishop are comparable to the claimed "opposed flanges" then it is clear that these elements of Bishop are not at each corner of the cubical module. Bishop lacks the claimed "flanges arranged in opposed pairs having axially aligned apertures" and further "having a wave deflecting recessed portion...between a pair of opposed flanges" of the Applicant's invention. In fact, the yoke 44 of Bishop completely lacks a recess in the yoke as shown below. The following figures from the Applicant's application and the Bishop patent help show the differences. Below figure 2 from Bishop shows that the flanges in Bishop referenced by the Examiner extend the length of the module 22.

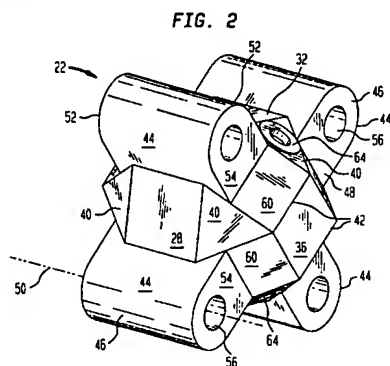


Figure 2 of Bishop shows the front wall 28 to the left front between the yokes 44. Bishop states, "the front wall 28...[is] intended to receive the oncoming flowing water." Col. 7, lines 10-22.

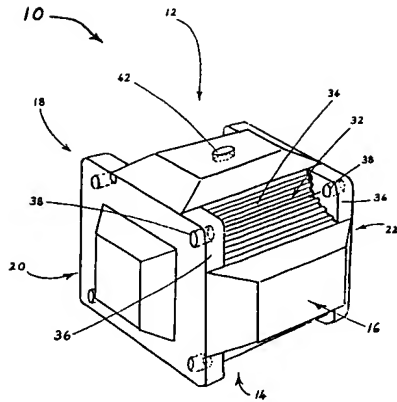
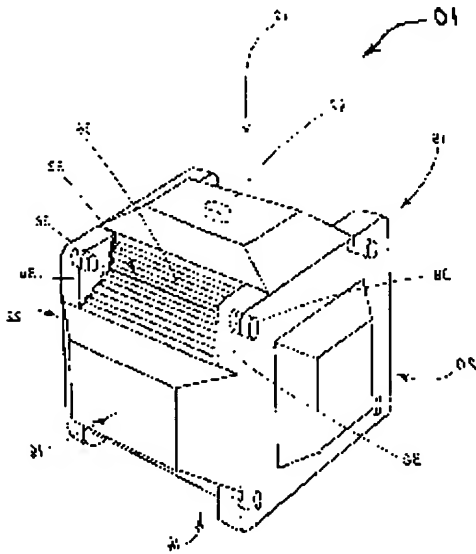


FIG. 1

Figure 1 of the applicant's application actually is orientated such that the front 16 is on the right so in fact it is shown as a mirror image of the orientation of that in Bishop's Figure 2. Below the Applicants have reoriented the Applicants' drawing as a mirror image



in order to clearly distinguish the Applicants' invention from Bishop and to aid the Examiner. This orientation is now similar to the orientation of the Bishop drawing because it shows the front face 16 in the lower left hand side. A comparison of the Applicants' figure 1 and Bishop's figure 2 clearly shows that the yoke 44 extends along the entire width of the Bishop module 22. In contrast the Applicants' module has a recess between the apertures 38. This is the "wave deflecting recessed portion...between a pair of opposed flanges" claimed in Claims 1 and 10. Bishop explains in column 6, lines 6 - 13, that it is important that the yokes be "constructed so that they are disposed in parallel... to facilitate the mounting of plurality

of modules 22 (buoyant bodies) to one another." This allows the modules of Bishop to "lie flush against each other and provide for uniformity of the passages among the modules as discussed hereinafter." This is in contrast and teaches away from the Applicants' current invention in which the flanges are axially aligned with "a wave deflecting recessed portion...between a pair of opposed flanges."

The distinctions as noted above are equally relevant to dependent Claims 2 - 9, and 11 - 19. These claims may be distinguished in the same way as Claims 1 and 10 since they depend from Claim 1 or Claim 10 and include all the limitations of Claim 1 or Claim 10.

2. Claims 3 - 4, 6, 9, 13 - 14, and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop, *et al* (US 5,879,105) or alternatively Bishop in view of Dougherty (US 4,027,486) or Karnes (US 4,341,489). The Examiner, in regards to Claims 3 - 4 and 13 - 14 states that Bishop "does not teach rigid rods." Dougherty is cited as teaching the use of "rigid rods (bolts 47, 54) through flange apertures to connect multiple breakwater modules." The bolts of Dougherty have a limited extent since they are bolts and not rods and thus do not make the Applicant's invention obvious.

In regards to Claims 6 and 16, as well as 9 and 19, the Applicants agree that "Bishop does not have a *rectangular* pyramid form . . ." as stated by the Examiner in the February 12, 2004 office action, page 7, but disagrees that the Applicants' invention is obvious in view of Bishop since Bishop does not have other elements of the invention. It is not obvious to modify a non-existing structure to the one proposed by the Examiner.

Since Bishop contains no suggestion of teaching axially aligned flanges even if rigid bolts or a particular shape were incorporated into the Bishop structure, the resulting combination still would fall far short of the invention as set out in Claims 3 - 4 and 13 - 14 as the combination would still be distinguishable by at least the features set out above.

Accordingly, in view of the above amendments and comments, Applicant considers that the claims remaining in the case are in condition for allowance, which action is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Donna P. Suchy", is written over a horizontal line.

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